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# 3D Printed vs. Traditional Hand/Wrist Orthotics

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## Introduction

Occupational therapists (OTs) often assess those who are in need of a customized orthotics, as the condition they are facing is creating a barrier between them and their daily activities. The value of exploring an alternative to conventionally made orthoses is to seek the most optimal and up to date intervention for patients in wrist injury recovery. Medical advancements in orthotics promotes patient compliance to wearing orthoses, which leads to improved functional outcomes. This study hypothesizes that 3D printed wrist orthotics will improve patient's comfort, functionality, and manufacturing time when compared to conventional thermoplastic custom made wrist orthotics.

## Purpose

To compare the differences between 3D printed orthoses and conventional orthoses on comfort, manufacturing, and functionality. By conducting this study, new and improved technology to create better customized orthoses is explored to examine whether 3D printing and scanning technologies are an alternative method OTs can consider using to create better customized orthotics.

## Methods

**Study Design:** explanatory sequential mixed methods study design and ethnographic study;

- Wrist immobilization splints

**Participants:** Convenience sample of three participants, recruited from the Pace University Occupational Therapy program, with no history of hand-wrist injuries.

**Data Collection:** Two sessions

- First session: Fitted and scanned for 3D and thermoplastic orthotics
- Second Session: Assessed comfort, functionality, and manufacturing

**Data Analysis:** Descriptive and inferential statistics

- M, SD, Wilcoxon Signed Rank, Cohen's D

Table 1  
Wilcoxon Signed Rank Test- [Quest 2.0](#)

Quest 2.0	P-value	Z-value	MEANS (3D)	SD (3D)	MEANS (TRAD)	SD (TRAD)
Q1- Dimensions	1	-	4	1	4	1
Q2- Weight	0.317	-1	5	0	4.6667	0.57735
Q3- Adjusting	0.157	1.414	4.3333	0.57735	5	0
Q4- Safe/secure	0.157	-1.414	4.6667	0.57735	4	1
Q5- Durability	1	-	4.6667	0.57735	4.6667	0.57735
Q6- Easy	1	0	4	1.73205	4	1
Q7- Comfortable	0.655	-0.447	4.3333	1.1547	3.3333	2.08167
Q8- Effective	0.157	1.414	3.6667	0.57735	4.3333	0.57735

Table 2  
Wilcoxon Signed Rank Test - [Jebsen Hand Function Test](#)

VARIABLE	P-value	Z-value	MEANS (3D)	SD (3D)	MEANS (TRAD)	SD (TRAD)
Writing	0.593	0.535	12.8767	3.18963	16.7867	7.58071
Simulated Page Turning	1	0	5.3867	0.83291	5.5833	0.35247
Lifting small common objects	1	0	8.1433	2.54016	8.5633	1.37442
Simulated Feeding	0.285	1.069	11.1933	4.80622	13.82	2.94573
Stacking Checkers	0.593	0.535	3.4033	1.08191	3.8133	0.75745
Lifting large light objects	0.593	0.535	4.3567	1.08187	4.43	0.33451
Lifting large heavy objects	1	0	4.0933	0.64532	4.1	0.32
Total	0.593	0.535	49.4533	13.32899	55.3633	8.85846

Table 3

Splint Properties			
3D Printing material	PLA	Thermoplastic Material	Rolyan - non latex
3D Printing cost	\$20-40	Material cost	\$56 per sheet

Manufacturing Time

Participant	3D	Traditional
001	8h 40m	18m 33s
002	8h 40m	21m 14s
003	8h 40m	22m 45s

## Results

- Statistically significant differences were not found between 3D printed and thermoplastic splints in comfort and functioning due to small sample size (n=3)
- However, 3D splints were better in writing and simulated feeding related tasks as noted in the large Cohen's d effect. (Writing: d = 0.67; Sim. Feeding: d= 0.66)
- 3d splints required longer manufacturing times, however, needed less hands-on customization and revisions.
- Material costs were lower with 3D splints than with thermoplastic.
- Materials are able to be purchased in different colors which can be an attractive quality for certain populations, especially pediatrics.

## Discussion

These findings show that 3D printed splints are as functional and comfortable as thermoplastic splints. Occupational therapists may choose to use 3D splints instead of thermoplastic splints as an intervention for hand and wrist injuries. It is a promising alternative that could be used to improve clinical outcomes, while keeping comfortability in mind.

**Future Research:** There is a need for more research to be completed on 3D splints. Future research can focus on replicating this study with larger sample sizes, and exploring different 3D materials and software programs. It can also be beneficial to conduct long term studies to examine the effectiveness of 3D splints when treating hand-wrist injuries.





# Diagnostic Errors in Healthcare and Possible Prevention Strategies



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## Abstract

**Introduction.** Diagnostic errors, that is diagnoses that are missed, wrong or delayed, in primary care, are relatively common and most people will likely experience this issue in their lifetime.<sup>1</sup> Diagnostic errors for vascular events, infections and cancers account for nearly 75% of serious harm as a result of diagnostic errors.<sup>4</sup> This study aimed to review the literature on diagnostic error rates. Furthermore, it aimed to better understand patient perspectives on diagnostic errors in chronic illness and on possible prevention strategies, specifically interprofessional collaboration - the alliance between multiple healthcare providers working together to ensure quick and accurate diagnoses.

**Methods.** Six virtual interviews were conducted using purposive sampling. A thematic analysis was used during data collection. Participants included women from Adelaide, Australia, all suffering from chronic illness.

**Results/Discussion.** Themes of extended periods of time going without diagnosis, as well as decreased mental health, financial issues, and decreased trust in healthcare providers. In seeking to better understand patients experiences of diagnostic errors and interprofessional collaboration, this study contributes insight into more effective ways to provide diagnoses, such as interprofessional collaboration.

## Introduction

- Diagnostic errors in primary care are relatively common and most people will likely experience this issue in their lifetime<sup>1</sup>
- It is crucial for patients to receive a correct diagnosis promptly in order to manage their disease and follow appropriate treatment plans which may lead to longer survival<sup>2</sup>
- It is estimated that unnecessary tests, harms from misdiagnosis and legal payouts in the US cost more than \$100 billion<sup>3</sup>
- There are negative physical, economic and mental effects of diagnostic errors
- Interprofessional collaboration is the alliance between multiple healthcare providers, across fields, working together to ensure quick and accurate diagnoses

## Aims

- To identify patient perspectives on the reasons behind diagnostic errors and ways to prevent these errors
- To identify patient perspectives on interprofessional collaboration in healthcare and the ways in which it can help limit rates of diagnostic errors

## Methods

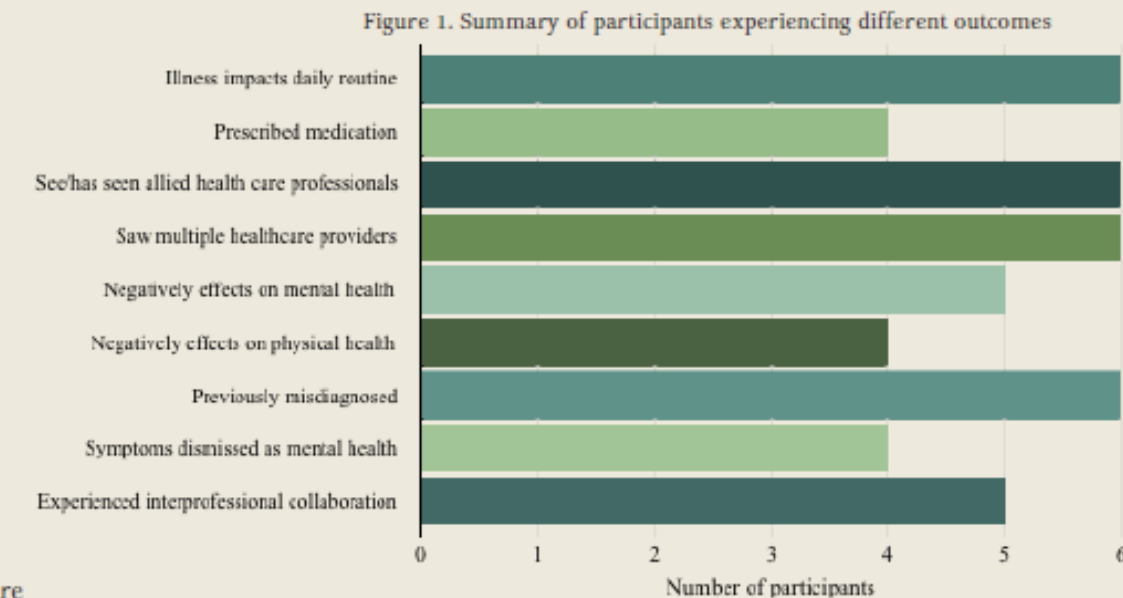
- Secondary quantitative data collected through a literature review to develop background information and summarize statistical evidence of diagnostic error rates
- Qualitative data collected through a thematic analysis of semi structured in-depth interviews of approximately thirty minutes
- Purposive sampling method used to determine interviewees from Adelaide, Australia
- Participants were identified through a snowball approach

## Results

- Six female participants
- Chronic illnesses represented include Ehlers Danlos Syndrome, endometriosis, irritable bowel syndrome, narcolepsy, and Crohn's Disease
- The average time taken for a diagnosis to be recieved was approximately 8.5 years
- All six participants experienced some kind of diagnostic error
- Four participants were misdiagnosed with a mental illness, one with a brain tumor and another with joint hyper mobility syndrome
- Figure 1. summarizes patient experiences
- All six participants had both positive and negative relationships with different healthcare providers. Positive relationships with healthcare providers were mainly attributed to attentiveness, working with a long-term provider, helpfulness, empathy, understanding, believing, trusting, and validating, among others.

## Conclusion

- The participants in this study each experienced delayed diagnosis and thus delayed treatment which negatively affected their health
- Before diagnosis, some were living with exacerbated pain and others felt their condition worsened
- Two thirds of the participants were misdiagnosed with mental health problems which suggests that a culture of dismissing physical pain should be diminished
- Interprofessional collaboration is a concept accepted by participants and other patients would likely have similar feelings towards it as it is unlikely that it has any negative side effects
- Empathetic and compassionate care should be the expectation in health care and should be included in health care education



## References

1. Diagnostic errors: Technical series on safer primary care. 2016
2. Lee, Huang et al. 2004
3. Newman-Toker. 2016
4. Newman-Toker, Wang et al. 2021

## Acknowledgments

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# COVID-19 Impact on National Board for Certification in Occupational Therapy (NBCOT) Passing Rates

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## Introduction

Coronavirus is an infectious disease that has drastically impacted education and forced students to adjust to a new way of learning. With the implementation of social distancing, students had to prepare for prolonged school closures and virtual learning in order to prevent this disease from spreading. A review of the current literature has shown that Covid-19 has harmed students' academic performance. The implications of conducting this study can be used in the future for further research or if another pandemic or natural disaster should occur.

## Purpose

Identify if the Covid-19 pandemic impacted student passing rates on the NBCOT exam.

## Methods

- A mixed-methods research design was used. New York was further examined as it was the epicenter of the pandemic.
- Scores on the NBCOT exam from the years 2019-2021 were gathered and analyzed from 34 OT programs including CA, NJ and CT.
- Further qualitative data was gathered with a survey given to recent graduate students.

## Participants

- 14 graduate occupational therapy students
- 34 master level OT programs

## Results

*Results of a One-Way Repeated Measure ANOVA and Friedman Test for NBCOT Passing*

		Rates	ANOVA	Friedman
	M	SD	Sig.	Sig.
Y19	97.41	3.016	.037	.012
Y20	95.21	7.036		
Y21	97.44	3.661		

$p < .05$

*Results of a Friedman Test for NBCOT Passing Rates*

		2018	2019	2020	2021
N	Valid	34	34	34	34
Mean		97.7353	97.4118	95.2059	97.4412
Median		100.0000	98.50000	97.0000	98.0000

*Results of Paired Samples t-test and Descriptive Statistics for Average NBCOT Passing Rates*

		Mean	N	SD	Std. Error Mean	One-Sided p
Pair 1	Y19	97.41	34	3.016	.517	.027
	Y20	95.21	34	7.036	1.207	
Pair 2	Y20	95.21	34	7.036	1.207	.045
	Y21	97.44	34	3.661	.628	
Pair 3	Y19	97.41	34	3.016	.517	.046
	Y21	97.44	34	3.661	.628	

## Quantitative Results

- A significant effect was found ( $F(3,99) = 2.946$ ,  $p < .037$ ) in the years of 2019, 2020, and 2021.
- NBCOT passing rates significantly decreased during the height of the pandemic
- Pre-covid passing scores in 2019 ( $M = 97.41$ ,  $sd = 3.016$ ), height of the pandemic in 2020 ( $M = 95.21$ ,  $sd = 7.032$ ), and after the height of the pandemic in 2021 ( $M = 97.44$ ,  $sd = 3.661$ ).

## Qualitative Results

Qualitative analysis of the post-survey responses produced the following five themes:

- (1) Lack of a structured environment to study
- (2) No study groups
- (3) Lack of hands-on learning - impact on level II fieldwork,
- (4) Wearing a mask during the NBCOT exam added stress and anxiety
- (5) Stress and distractions at home.

## Conclusions

This study suggests that the Covid-19 pandemic had a significant impact on occupational therapy students' NBCOT passing rates. Even with all the efforts put in by the students to adjust, their performance on the NBCOT exam during the peak of the pandemic was significantly lower than in previous years.



SCAN ME





# Shape Capture of Custom Contoured Cushions in Supine vs. Upright Position

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## Introduction

The purpose of this study was to determine if changing the position in which shape capturing is administered when creating a custom contoured cushion increases pressure relieving qualities. Researchers compared pressure distribution of shape capturing in the traditional upright position to the new supine method.

## Purpose

- To develop the best practice of shape capturing for creating custom contoured wheelchair cushions that reduce the risk of developing PIs
- To evaluate if shape capturing in the supine position results in improved pressure distribution as compared to the upright seated position

## Methods

- Mixed methods, quasi-experimental, within subjects' research design
- PPI collected using pressure mapping system
- Comfort level measured using Likert scale
- A Wilcoxon Signed Rank Test and paired samples t-test were run to determine statistical significance

## Participants

- 14 able-bodied occupational therapy students
- 18 years or older with intact sensation in lower body -no higher than "high risk" on the Braden Scale, and no current or past history of PIs

## Results

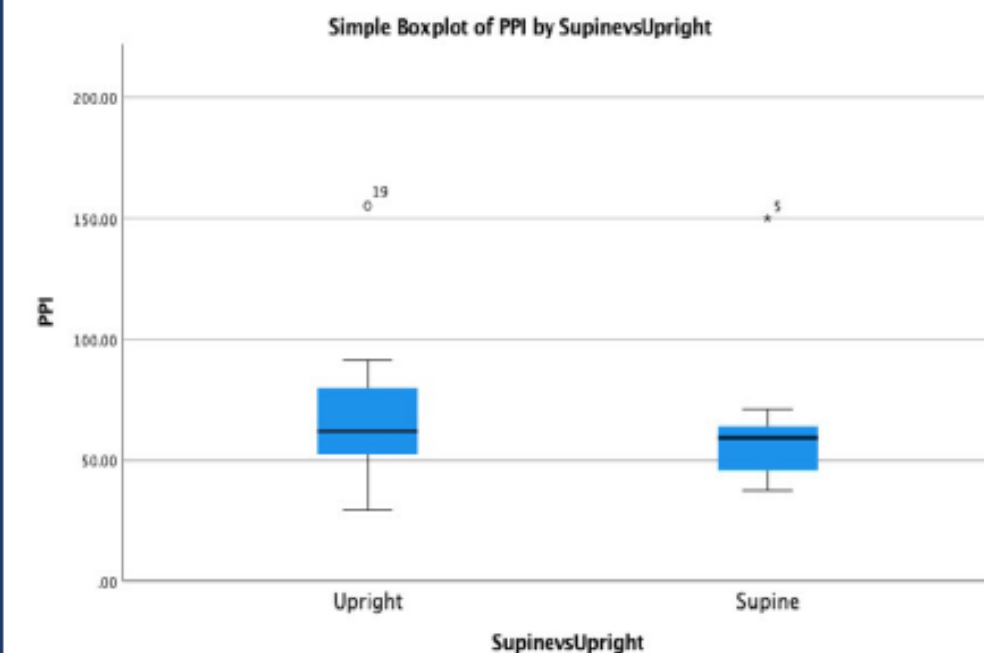
- The supine position had a lower PPI compared to the upright position. ( $Z = 2.04, p < .05$ )
- A significant decrease in PPI was found in supine compared to the upright position ( $t(13) = -2.278, p < .05$ ).
- No significant difference was found in the comfort level of the cushion created in supine compared to the cushion created in the upright position ( $Z = 1.342, p > .05$ )

**Table 1**

Results of Paired Samples t - test and Wilcoxon Signed Rank Test to compare PPI

	<i>M</i>	<i>SD</i>	<i>Z(p)</i>	<i>t(p)</i>	<i>d</i>	95% <i>CI</i>
Upright	69.29	30.18	2.040(.04)	-2.28(.04)	0.609	-14.67, -.39
Supine	61.75	27.71				

Note. \*  $p = .04$ .



## Discussion

- This study provided evidence that shape capturing in the supine position has a lower peak pressure index compared to shape capturing in upright.
- Statistical significance was achieved for PPI between shape capturing in supine compared to upright.
- Shape capturing in supine provides better pressure redistributing qualities which helps reduce the risk of developing PIs.

## Significance

- Each year 2.5 million individuals in the United States develop PIs (Padula & Delarmente, 2019).
- PI care costs \$46,000 annually per person with an aggregate cost of approximately \$11 billion in the United States.
- Wheelchair users spend a majority of their day seated unable to pressure relieve.
- Creating a custom contoured cushion with the greatest pressure relieving qualities is important to reduce the risk of developing PIs which ultimately improves overall quality of life.





# Resilience Narratives Amid Economic and Educational Inequalities Storied by Unemployed Young American Black Men

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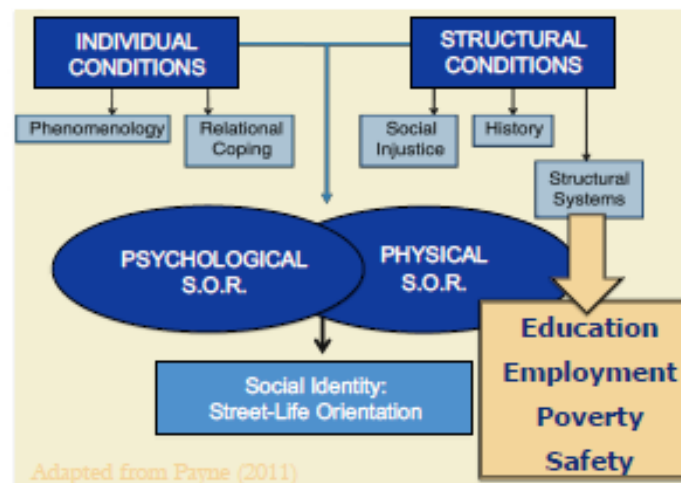
## Introduction

Racism has dramatically influenced the social hierarchy of US society, with resultant inequalities in wealth, education, and criminal justice system involvement. The purpose of this study was to understand how unemployed young urban Black men negotiate economic and educational inequality from resilience perspectives.

## Theoretical Framework

Payne's (2011) site of resilience theory considers individual and structural conditions that lead to the merging of psychological identities with physical or geographical places (Figure 1). Securing resilience on a personal, group, and community level can result in a street-life oriented social identity.

Figure 1. Site of resilience theory



## Background

- Many Black people are trapped in intergenerational poverty, owning 1/10th the wealth of whites, with much lower upward mobility (Hanks et al., 2018; Chetty et al., 2020)
- Low social status often leads to weak education, isolated and segregated neighborhoods, fewer decently-paying jobs, and scarcer safety nets (Hanauer, 2019)
- Black American men born in 2001 have a 1-in-3 lifetime chance of imprisonment (Ghandnoosh, 2015)

## Methods

Design: Qualitative narrative inquiry

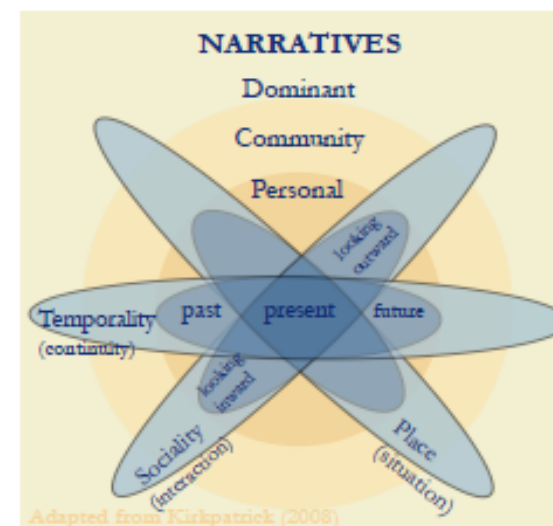
Participants: 3 unemployed urban Black male descendants of US slavery, aged 18-35

Setting: Disadvantaged Black community in a small suburban city in New York

Data Collection: Narrative interviews, field notes, and reflexive journaling

Analytic Approach: Narrative analysis considered: (1) orientation of authorial voice; (2) Clandinin and Connelly's (2000) three-dimensional narrative inquiry space framework elements (Figure 2); and (3) site of resilience theory for contextual positioning. Validated interviews were synthesized into chronological restoried narratives.

Figure 2. Three-dimensional narrative inquiry space framework



## Discussion

Pseudonym	Age	Education	Recent Work Experience	# of Arrests	Main Resilience Stories
Harmon #1	Mid-20s	Some college no degree	Locksmith, Marketing entrepreneur	0	Sports to business transition Affiliate marketing
Alex	Early 30s	Bachelor's degree	Teacher, Entrepreneur	5	Choosing where to sit - 9th grade Racism at college frat party
Joe	Late 20s	Some college no degree	Professional fighter, Pool technician	5 or 6	Anger - having a child at 16 Racism while hiking

### Narrative Thread Findings

1. Recognition of tension
2. Resolve
3. Ongoing mentorship
4. Strengthening social identity
5. Optimism and gratitude

### Recommendations

- Facilitate resilience strategies that foster self-awareness, establish sites of psychological and physical resilience, and sustain mentorship
- Broaden entrepreneurial education programs awareness of internal and external tensions, and the role of cognitive dissonance in resilience
- Promote recognition of structural conditions through critical social analysis and critical consciousness

### Acknowledgements

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### References

- Chetty, R., Hendren, N., Jones, M. R., & Porter, S. R. (2020). Race and economic opportunity in the United States: An intergenerational perspective. *Quarterly Journal of Economics*, 135(2), 711-783. <https://doi.org/10.1093/qje/qjz042>
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. Jossey-Bass.
- Ghandnoosh, N. (2015). Black lives matter: Eliminating racial inequality in the criminal justice system. *The Sentencing Project*. <https://www.sentencingproject.org/publications/black-lives-matter-eliminating-racial-inequality-in-the-criminal-justice-system/>
- Hanauer, N. (2019, July). Better schools won't fix America. Better schools aren't for America. <https://www.theatlantic.com/magazine/archive/2019/07/education-just-enough/590611/>
- Hanks, A., Solomon, D., & Wildes, C. E. (2018, February 21). Systemic inequality: How America's structural racism helped create the black-white wealth gap. *Center for American Progress*. <https://www.americanprogress.org/issues/race/reports/2018/02/21/447051/systemic-inequality/>
- Kirkpatrick, H. (2008). A narrative framework for understanding experiences of people with severe mental illnesses. *Archives of Psychiatric Nursing*, 22(2), 61-68.
- Payne, Y. A. (2011). Site of resilience: A reconceptualization of resiliency and resilience in street life-oriented Black men. *Journal of Black Psychology*, 37(4), 428-451. <https://doi.org/10.1177/0095798410394178>





# Evidence Based Practice Improvements: Medication Reconciliation to Improve Compliance in Geriatric Patients



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## PICO

Would reconciling medication administration instructions through a short, easy to read pamphlet at discharge, for seniors 65 and over returning home from a hospital stay, improve medication compliance compared to seniors 65 and over who are discharged with routine medication instructions?

## Background

- The consequences of drug noncompliance range from 40% to a high of 75%
- Common forms of drug noncompliance are seen in forms of forgetting to take a medication, overuse and abuse, and alteration of scheduling and dosing
- Because the geriatric population is more prone for various chronic and recurrent illnesses such as diabetes mellitus, hypertension, IHD, arthritic, etc., which may require chronic medication with multiple drugs, nonadherence is common



## Search Strategies

References were obtained from the CINAHL, Cochrane Library, Health Source: Nursing/Academic edition, Medline, Nursing and Allied Health Collection, and PubMed databases. Using keywords "Medication consolidation", "Elders or elderly or seniors or geriatric", "Medication compliance", and "safety", 12 articles were compiled: including one clinical practice guideline and one systematic review. Exclusions included articles over 5 years and articles that did not examine at least two of the keywords used in the search.

## Research Literature Review

According to the literature review, "Nurse Interventions to Improve Medication Adherence Among Discharged Older Adults", it's discussed that medication errors can be reduced by using medication management tools and medication reviews that are clearly defined, easily applied, and contain limited information. Providing patients with these tools eliminates unsafe applications.

## Major EBP Recommendations

The recommendation by the literature review is to ensure that medication reconciliation is completed in geriatric patients who are on multiple medications. It is vital to help the patients understand the importance of following their regimen as this has resulted in significantly decreased hospital readmissions.

## Proposed Practice Improvement

Our proposal is to improve medication compliance by developing an educational pamphlet containing easy to use language for seniors to be sent home at discharge. Patient education will be provided to ensure that the patient and family members understand how to utilize the pamphlet.



## Evaluation

To evaluate the effectiveness of our proposed idea to improve medication compliance through pamphlets, we would perform check-ins with geriatric patients. Check-ins would include follow up appointments, phone calls to the patients, and phone calls to their caregiver if there is one present. The conversation would consist of asking the patient if they are experiencing any expected side effects, as well as any adverse effects. In addition, we can encourage patients to bring in all medications being taken to their follow up appointments. Through these evaluations our intent is to ensure that medication compliance is achieved amongst the geriatric population.

## Change Process

To move forward with our idea, we plan to have the nurses collaborate with the patient's interdisciplinary team on formulating short discharge pamphlets that correlate with the medication regimens specific to their patients. These pamphlets will be looked over with patients before discharge to ensure their understanding of which medications they must take and how to take them.

## Bibliography

- 1. C. S. S. "Medication Compliance in the Elderly." *The Journal of Clinical Pharmacy*, U.S. National Library of Medicine. <https://pubmed.ncbi.nlm.nih.gov/708881/>
- 2. Boudet, A. et al. "A Study of Medication Compliance in Discharged Patients with Chronic Diseases at a Tertiary Care Hospital." *Journal of Clinical and Diagnostic Research*. (JCDR). JCDR Research and Publications (J) January, Dec. 2018. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6208881/>

Level of Evidence: 2





# Current Trends Within Potential Predictors of Resilience in Master's of Occupational Therapy Graduate Students

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## Introduction

Master of Occupational Therapy (MOT) graduate students are placed in an academic environment that exposes them to stress induced by academic workload, finances, lack of work/life balance, etc. Past research examined whether emotional intelligence and psychological well-being were helpful in predicting resilience. The purpose of this study was to analyze if emotional intelligence and psychological well-being played a role in the resilience of graduate MOT students at Pace University. The psychodynamic frame of reference and the MORE model were two conceptual approaches that guided the present research. The research questions formed were —

1. What are the psychological well-being, emotional intelligence, and resilience of MOT students at Pace University?
2. What are the relationships between psychological well-being, emotional intelligence, and resilience among MOT students at Pace University?
3. What are predictors of resilience in MOT students at Pace University?

## Methodology

**Design** — This study utilized a two-tailed correlational design to collect data from three different level cohorts of MOT students at Pace University.

**Participants** — Graduate students from the Pace MOT program were recruited via convenience sampling. The digital survey links were sent to participants directly through the Pace MOT GroupMe platform and their university emails.

**Data collection** — The four surveys used to collect data during this study were the Depression, Anxiety, and Stress Scale (DASS-21), Ryff's Scales of Psychological Well-being, Brief Resilience Scale, and Emotional Intelligence Scale. The DASS-21 measured depression, anxiety and stress outcomes. The Ryff's Scales of Psychological Well-being measured self-acceptance, positive relations, environmental mastery, personal growth, autonomy, and purpose in life. The Emotional Intelligence survey was used to measure the student's awareness of, understanding, and emotional management which were analyzed and separated into four domains: emotional awareness, emotional management, social emotional awareness, and relationship management.

**Data analysis** — SPSS Statistics were used with an alpha level of .10 to analyze all data along with a nonparametric correlation test to determine statistical significance between the four surveys used to collect data. After data was collected and analyzed, the predictors of resilience were then determined through a regression analysis.

## Results

After conducting a Spearman correlation test to compare the domains of the three scales to the Brief Resilience Scale, the results showed the correlation coefficients of 3 of 13 domains were high enough to be correlated to resilience. Statistical significance was found in those three domains as well ( $p < .10$ ). The data contrived from the Spearman correlation test are located in Table 1 below.

Table 1

Results of Spearman correlation test of each domain compared to Resilience

	DASS			Emotional Intelligence			Psychological Well-Being						
	Anxiety	Depression	Stress	Emotional awareness	Emotional management	Social emotional awareness	Relationship management	Autonomy	Environmental mastery	Personal growth	Positive relations with others	Purpose in life	Self-acceptance
r	.269	.055	.342	.062	-.291	-.209	-.114	.358	.335	.145	.138	.115	-.185
p-value	.388	.422	.193	.412	.140*	.227	.543	.085*	.111*	.363	.312	.341	.255

\* $p < .10$

Note: p-value is two-tailed (p/2)

Using the 3 domains, a regression analysis was used to examine the best predictors of resilience in MOT students, shown in the visual. Both environmental mastery and emotional management were found to be reliable predictors of resilience, whereas autonomy was not.

Afterwards, multicollinearity of these 3 domains was analyzed using a scatter plot, finding correlations between autonomy and anxiety, as well as positive relations with others and depression.

★ **CONCEPT 1** — The best predictors of resilience are environmental mastery and emotional management.

These abilities can be used to determine whether an MOT student is resilient without taking a survey that assesses resilience.

★ **CONCEPT 2** — Autonomy is still important to consider even though it is not a predictor of resilience, because of its correlation to both resilience and anxiety. The more autonomous an MOT student, the higher their anxiety levels will likely be.

★ **CONCEPT 3** — These findings can be utilized as a pilot study, as it is a small-scale research design that improves the quality and efficiency of future studies not only by using the data as guidance, but also by working around any limitations within this study.



$p\text{-value} = 0.117^*$

\* $p < .10$ ; two-tailed

$R^2 = 0.216$

$p\text{-value} = 0.141^*$

\* $p < .10$ ; two-tailed

## Conclusion

Resilience among MOT students is a prominent issue within the graduate student population. Students need practitioners to make interventions and treatment approaches that target different mental health domains that impact their resilience. This study aimed to determine how resilience correlated with the mental health of MOT graduate students. Results suggest that environmental mastery, emotional management, and autonomy are correlated to resilience, whereas the latter two are also predictors of resilience.

Ongoing research is needed to address predictors of resilience within the MOT graduate student population as it could promote improvements in occupational performance and well-being during times of high stress. This can determine the validity of these claims towards increasing students resilience to better manage the psychological demands.

**Impact statement** — Focusing on interventions/practices that improve an MOT student's mastery of their environment and how well they manage their emotions will benefit their resilience during stressful situations.





# Experience of Faculty Parents During the COVID-19 Pandemic

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## Introduction

- The purpose was to explore the impact of COVID-19 pandemic on the work-life balance of occupational therapy faculty parents.
- Research Question: What impact does the COVID-19 pandemic have on the work-life balance of Occupational Therapy faculty parents?

## Methods

- Participants were recruited through the AOTA CommunOT Forum.
- Eligibility: Faculty members in a graduate OT program, who care for a child or children during the pandemic.
- The research study is a phenomenological qualitative study using semi-structured interviews through Zoom.
- Interviews involved open-ended questions regarding experience as a faculty parent during the COVID-19 pandemic and adaptation processes.
- Microsoft Word 365 was used to transcribe recorded interview speech to text.
- Codes and themes were created through peer debriefing.

## Participants

- Four Occupational Therapy faculty parents



## Results



## Discussion

- There was a burden on working individuals due to increased financial insecurity and childcare (Cheng et al., 2021).
- The main themes that were concluded from our research was that Occupational Therapists faculty parents had trouble managing work/life balance, felt overwhelmed/anxious, and had an increase in their activities of daily living.
- The pandemic has reduced family incomes while creating serious constraints and challenges for all the sectors that usually provide after school and child care support to working parents (Adams & Todd, 2020).
- Some studies have shown that there has been an increase in anxiety, depression, and other negative feelings connected to the economic downturn associated with the COVID-19 pandemic (Cheng et al., 2021).

## Conclusion

- This research showed the effect of COVID-19 on occupational therapist faculty members and their families. It was already challenging for most people to balance their work and personal lives; however, the pandemic caused a toll on working occupational therapist faculty members.
- Most said it was challenging to adjust to the changes taking place. They had to adapt to telehealth and manage their children to go to virtual school simultaneously. It was overwhelming, but they learned new ways to cope and improve their mental health. The COVID-19 pandemic caused a lot of uncertainty, stress, and negative impact on mental health for occupational therapist faculty members.





# Using Experiential Learning to Teach Ergonomics in OT Curriculum

Jennifer Mathew, Alexandria Stevens, Ilana Ishayev

Supawadee Lee, PhD, OTR/L



## Purpose

The purpose of this study was to see if experiential learning impacts students' clinical reasoning skills, confidence, and knowledge when performing evaluations and interventions as future clinicians.

## Abstract

This research study aims to examine if the integration of experiential learning opportunities has an impact on the students' clinical reasoning skills, confidence level and knowledge when performing an evaluation and intervention for ergonomics. A mixed method ethnographic study was conducted after students completed their ergonomics course. The data was collected by providing a 20 item questionnaire on a likert scale, as well as conducting focus groups. Sixteen participants were recruited in this study. After analyzing the data, five common themes were found amongst the participants.

## Methods

**Design:** Mixed methods study, 20 question survey, Likert scale (1-7), Focus groups, Open-ended questions

**Participants:** Sixteen second year graduate occupational therapy students from Pace University

**Data Collection:** Survey completed through Qualtrics; Two focus groups consisting of 5 students in each were video/ voice recorded to gather common themes

## Results

### Qualitative Themes:

#### Real World Application

"I am certain that if during fieldwork we had to visit someone's house in order to assess any problems, such as their stairs or the condition of their rugs, we would be able to do so since the class was so application based"

#### Clinical Reasoning Skills

"I would recommend that my grandma remove any clutter to prevent her from falling and keep things within reach"

#### Interpersonal Communication

"Our class did a lot of collaborating. Whether it was going around the school in groups or taking turns using the wheelchair and solving problems together, there was a lot of collaboration and applying what we learned in class to the outside environment."

#### Development of New Knowledge/ Skills

"I feel that I pay more attention to my posture and my knees when I am transferring kids all day, and so, I like to keep that in check so that I do not hurt myself"

#### Organized Teaching Method

"The teaching method was easier to comprehend due to the way the professor divided lessons between assignments, labs, and lectures."

### Quantitative Themes:

#### Clinical Reasoning      Application

Student Demographics	
Variable	Total, n (%)
Age	
23-27	14 (87.5)
28-32	2 (12.5)
Gender	
Female	15 (93.8)
Male	1 (6.3)
Ethnicity	
Asian	4 (25.0)
Black or African American	3 (18.8)
White	7 (43.8)
Other	2 (12.5)
Marital Status	
Married, or in a domestic partnership	1 (6.3)
Single (Never married)	15 (93.8)

#### Adaptability      Interprofessional Skills

Question Themes	Mean (SD)	Median
Clinical Reasoning	5.66 (1.06)	5.69
Application	4.77 (1.09)	4.38
Adaptability	5.21 (0.97)	5.25
Interprofessional Skills	5.98 (0.91)	6.19



## Data Analysis

The 20 questions were compiled into 4 categories. The mean, standard deviation, and median were calculated.

Thematic Analysis was used to develop common themes derived from the of the focus groups.

## Discussion

The use of experiential learning to teach Ergonomics in an OT curriculum can:

- Enhance academic understanding and application,
- Improve interpersonal skills
- Improve clinical reasoning skills.

## Future Implications

Incorporating experiential learning into the OT curriculum gives:

- Entry level Therapists confidence and clinical reasoning skills when working with clients.
- Students a better understanding of context, including the person, environment, and occupation, which leads to more effective treatments with clients.



# Complementary Health Modalities at an Acute Care Hospital: Assessing Comfort

Susan Balamaci MSN, RN-BC, HNB-BC Elizabeth Berro PhD candidate, RN, CHSE Angela Russo MSN, RN, AHN-BC,

**Providing comfort is a primary nursing goal; however, comfort evaluation tools are elusive.**  
We developed and tested an observational comfort assessment considering facial expressions, affect, and body position (FAB).

## Chart Review & Literature Review

### FAB Background

#### Retrospective Chart Review:

- 38,578 complementary modalities in one year (March 2018 – March 2019)
- Ten different holistic modalities included
- Comfort as the main indication for complementary modalities (73%)

#### Literature Review:

- 33 citations included (437 initial findings)
- No usable behavioral comfort assessment identified
- Adoption of Kolcaba's (1997) definition of comfort
  - Comfort is the "experience of being strengthened through having the human needs for relief, ease and transcendence met."

## FAB Development

**Faces Affect Body (FAB) COMFORT ASSESSMENT**

The unit where the form is completed: \_\_\_\_\_ Time completed: \_\_\_\_\_

Patient position: ☐ Lying in bed (HOB < 45°) ☐ Sitting in bed (HOB > 45°) ☐ In-chair/in a hospital room ☐ In-chair / group setting ☐ Other \_\_\_\_\_

Individual completing: ☐ Staff RN ☐ Holistic Service RN ☐ Other: \_\_\_\_\_

Optional: Patient identified source of an obstacle to comfort: Pain Anxiety Nausea Insomnia SOB Other \_\_\_\_\_

The FAB Comfort Assessment is an instrument to determine a patient's comfort level quickly. Choose the highest score for each item based on patient descriptors. You may observe more than one descriptor. Add each score for a total score of comfort at the time of assessment. The total score ranges from 0 to 9, where 0 indicates a low level of comfort (discomfort) and 9 indicates a high level of comfort.

Item	Patient Descriptor	Score
Facial expression	Smile / Relaxed expression	3
	Neutral / Calm	2
	Absent / Distracted / Occasional frown / Clenched jaw	1
	Primarily frown / Grimace / Clenched jaw	0
Affect display	Cheerful / Positive vocalizations / Conversational tone of voice / Asleep	3
	Subdued / Restricted affect (reduced in range / intensity)	2
	Occasional negative vocalization / Irritable / Fearful	1
	Difficult to console / Primarily crying / Agitated	0
Body position/movement	At ease / Asleep / Awakens smoothly	3
	Appears tense / Shifting position (fidgeting) / Anxious movements	2
	Rigid limbs / Clenched fist / Hunched-up shoulders	1
	Thrashing / Flailing / Attempting to move away	0
Total (0-9)	Comments: (cultural, physical / psychological influences)	<input type="text"/>

## Preliminary Evaluation & CV Testing

### Results

- FAB was completed 33 different times, on eight different in-patient adult units and required less than five minutes to complete.
- Eighteen interprofessional content experts

Item	CVI
Facial Expression	0.86
Affect Display	0.84
Body Position	0.91

Indexes closer to 1 indicate strongest agreement; CVI levels in excess of 0.78 is considered evidence of adequate item relevance

### Future Research

Gold standard criterion testing and Interrater reliability





**Aisha Jawara & Dr. Ana B. Amaya**

Health Science Program, Pace University



## Introduction

- The COVID-19 pandemic increased the burden of communicable and non-communicable disease in low-and-middle- income countries and this has been significantly felt in Sub-Saharan Africa (Formenti et al., 2022). Low-income countries were particularly vulnerable to COVID-19 due to limited resources and already weak health-care systems.
- The Gambia is low-income country located in West Africa. It has a population of 2.1 million, of which 48.65% live in poverty (World Bank, 2022). The first COVID-19 case was identified in the country in March, 2020.
- The Gambian government implemented several strategies to control the spread of COVID-19 and communicate public health messages to its population but it has struggled to respond to COVID-19 and procure vaccines.
- Increasing access to the COVID-19 vaccine around the world is necessary to reduce the spread of the disease, prevent serious illness and death and minimize the emergence of new variants. It is also an issue of equity and justice.

## Methods

- We conducted a literature review of peer-reviewed and grey literature. We developed key words based on the research question, as well as inclusion and exclusion criteria. We searched peer-reviewed articles published from March, 2020-January, 2022 on PubMed and CINAHL.
- This resulted in an initial 867 articles retrieved. 10 further documents were identified from searching the websites of relevant institutions such as the African Union, World Health Organization, and African Centers for Disease Control and Prevention.
- A total of 948 papers were excluded and we conducted a final review of 22 studies (see figure 1 for further details).

## Literature cited

- 2020-2021. <https://www.who.int/news/item/23-12-2020-impact-of-covid-19-on-the-potential-to-reach-the-health-and-our-food-systems>
- Formelli, B. (2021). The Impact of COVID-19 on Communicable and non-communicable diseases in Africa: a narrative review. *International in Medicine*, 30(1). <https://doi.org/10.5581/imm.2001-4>
- Gambia: WHO Coronavirus Disease (COVID-19) Dashboard With Vaccination Data. (2021). WHO Coronavirus (COVID-19) Dashboard With Vaccination Data. <https://covid19.who.int/table>
- Adejumo, O. A., Ogunfede, O. A., Madubuike, C. R., Okwelu, R. O., Okeye, O. C., Okoroafor, K. C., Odetunde, S. S., Jumaid, O. A., Lawal, O. M., Enukometa, A. C., Naji, M. I., Sokunbi, A., Timothy, A. O., Abiodun, O. S., Ali, E. O., & Olujo-Odetunde, J. O. (2021). Perceptions of the COVID-19 vaccine and willingness to receive vaccination among health workers in Nigeria. *Globes Public Health and Research Perspectives*, 1(24), 256-263. <https://doi.org/10.2478/gpr.2021.00024>
- WHO (2021). Africa's progress on COVID-19. <https://www.who.int/news/item/15-12-2021-africa-s-progress-on-covid-19>
- Acceptability of COVID-19 Vaccination among Health Care Workers in Ghana. M. W. Agwumaku, F. P. Attia-Anane, F. Kyei-Arthur and B. Abo. *Advances in Public Health* 2021 Vol. 2021 Pages 996178-996179 doi: 10.5555/201996178
- <https://doi.org/10.5555/201996178>
- Smith, M. J., Ullrich, R. C., Hartz, R., & Sigmund, R. E. (2020). Emergency use authorization for COVID-19 vaccines: lessons from Ebola. *The Lancet*, 395(10204), 1707-1706. [https://doi.org/10.1016/S0140-6736\(20\)32337-9](https://doi.org/10.1016/S0140-6736(20)32337-9)
- El Attoui, A., Hailu, S. A., Rozzelle, L., & Palisaut, A. (2021). Between Ambitious Strategies and Reality: The African Union COVID-19 Vaccine. *Epidemiologia*, 2(4), 621-628. <https://doi.org/10.3390/epidemiologia20404>
- Johns Hopkins AEs. (2020). *Worldwide Pandemic Crisis*. Paul Bass, & Yajna Nigam. (2020). COVID-19 strategies: The Gambia situation and problem solutions. <https://www.researchgate.net/publication/357544446>
- <https://www.researchgate.net/publication/357544446>

## Findings

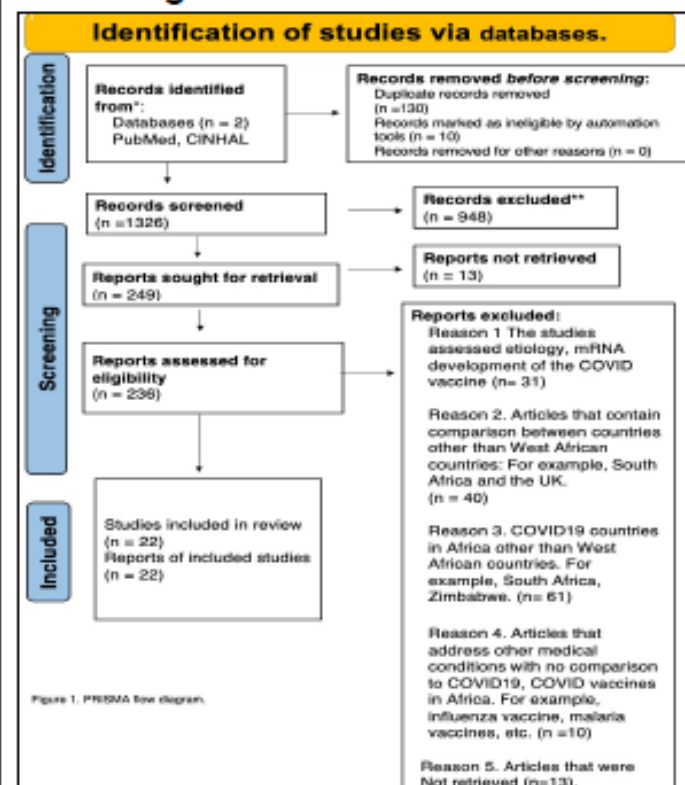


Figure 1. PFEOMA flow diagram

Table 1. Main themes	
Health system preparedness	<ul style="list-style-type: none"> <li>16 studies that addressed this theme discussed the low levels of preparedness of health systems throughout the African continent to prevent, diagnose and manage the COVID- 19 pandemic in the region.</li> <li>According to the Vaccine Readiness Assessment Tool, the WHO African Region was largely unprepared for the roll- out of COVID-19 vaccines in 2021. From those that reported to the survey, the average score was 33% for readiness for a COVID-19 vaccine roll-out, well below the desired benchmark of 80% (WHO, 2021).</li> </ul>
Resources to manage and guide COVID-19 were unavailable and limited	<ul style="list-style-type: none"> <li>16 studies were included under this theme. Findings show there were insufficient resources, including access to COVID-19 testing kits during the start of the pandemic, lack of access to medical supplies, personal protective equipment, and ventilators.</li> </ul>
Healthcare worker preparedness and vaccine hesitancy	<ul style="list-style-type: none"> <li>The 2 studies under this theme assessed the knowledge of healthcare workers on different aspects of COVID- 19, showing mixed results. Findings show that in some instances, only 80.9% of healthcare workers were willing to take the COVID-19 vaccine and 90% of these had moderate knowledge on detection and management of COVID-19 (Adejumo et al., 2021).</li> <li>Another study showed limited understanding of risk factors associated with COVID-19 (Agyekum et al.,2021).</li> </ul>
Equity in vaccine distribution	<ul style="list-style-type: none"> <li>The findings from the 11 studies included under this theme indicate that many African countries suffered from unequal distribution of the COVID-19 vaccine.</li> </ul>
African Union played a major role in vaccine distribution	<ul style="list-style-type: none"> <li>5 studies included under this theme focused on how the African Union and other health organizations such as WHO Africa worked together to allocate funds for COVID-19 vaccine deployment.</li> </ul>
Challenges in The Gambia related to COVID-19 and vaccine access	<ul style="list-style-type: none"> <li>4 studies included under this theme discussed the role of the Gambian government in responding to the COVID-19 pandemic; Gambia's strategies to support women during the pandemic; as well as the impact of The Gambia's response strategies for rural and urban communities.</li> </ul>

## Acknowledgments

Thank you to the Amelia A. Gould Children's Health Program Fund at the College of Health Professions and the Provost's 2021-2022 Academic Year Student-Faculty Undergraduate Research Award for their support to this project.

## Conclusion

- Appropriate access to vaccines remains a problem around the world, especially in low- and middle- income countries.
- The COVID-19 pandemic has highlighted how access to vaccines is an ongoing issue particularly in the African continent, which had less negotiating power to procure vaccines and supplies compared to high-income countries.
- Understanding how to improve access to the COVID-19 vaccine in low-income countries is crucial to preventing deaths and limiting the effects of future pandemics.
- The Gambia needs to continue to work on improving access to vaccines, particularly in rural areas. They will also need to implement policies and measures to improve the country's ability to respond to future disease outbreaks.
- Next steps will include evaluating the African Union's efforts to increase vaccine distribution in West African countries.
- Assessing the continent's ability to produce a COVID-19 vaccine that is easy to store and distribute throughout the continent will also be important.



### Further information

Contact me at  
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or comments.





# Outcomes Following Liver Transplantation of the Alcohol-Related Liver Disease Recipient

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Lienhard School of Nursing - Pace University



## Introduction and Background

- Alcohol-related liver disease (ARLD) has become the leading indication for liver transplant (LT) in the United States (Kitajima et al., 2020).
- ARLD is caused by excessive consumption of alcohol over a long period of time which creates inflammation and subsequent fibrosis of the liver tissue resulting in cirrhosis. After fibrotic tissue is formed, the liver is no longer amenable to regeneration which leads to end-stage liver disease (ESLD).
- ESLD patients will likely not survive without an intervention such as a liver transplant (Crabb, 2020).
- Deaths due to ARLD have increased in younger age groups (Julian, 2020).
- From 2004 to 2013, the number of patients listed for transplant due to ARLD has increased by 45% (Crabb, 2020).
- Medical care for patients with ARLD has become an economic burden especially due to frequent admissions to manage their healthcare (Julian, 2020).

**Research Question:**  
What Are The Outcomes  
Following Liver Transplantation For The  
Alcohol-Related Liver Disease Recipient?

## Methods

**Search Method:** An integrative review was conducted according to the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) statement (Page et al., 2021).

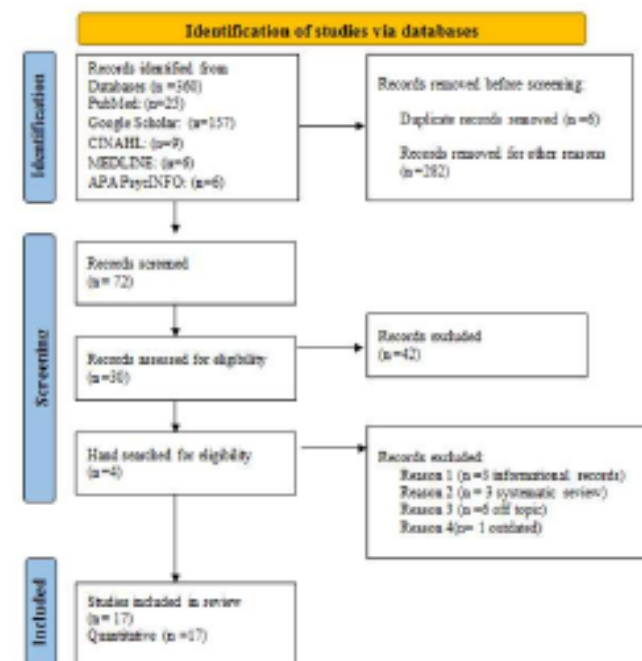
**Time Frame Searched:** 2016 to 2021

**Search Terms:** Medical subject headings (MeSH) were indexed with the search terms: 'liver transplantation' AND 'hepatitis' AND 'alcohol' AND 'liver diseases' AND 'outcomes'. A thorough search of Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, Medline, American Psychological Association PsycINFO, and Google Scholar was conducted followed by a critical appraisal of the studies using Bowling's (2009) criteria.

**Inclusion Criteria:** Post liver transplant outcomes, alcoholic related liver disease, retrospective study, prospective study, comparative study, studies from peer-reviewed journals, written in English.

**Exclusion Criteria:** Pediatric liver transplant outcomes, liver donor liver transplant outcomes, studies done for other solid organ and dual transplant outcomes, studies published prior to the year 2016, except for the one seminal study in 1911.

## PRISMA Flow Diagram



## Data Evaluation and Critical Appraisal

- The Bowling (2009) criteria and checklist were used in the data evaluation stage to appraise the rigor of the studies.
- The studies ranged from 14 to 16 out of a total of 20 points.
- Three studies clearly specified hypotheses and research questions, which are inherent to their descriptive nature.
- Study data was predominately collected by retrospective analysis after LT. The instruments were validated and reliable, which is a strength of this review.
- Studies written by the same authors differed in methodology, purpose, or sample. The initial studies were conducted in Europe, France, Vienna, and Spain.
- There were a total of 8 studies done in Europe. The international range of these studies is representative of ARLD being a significant health problem globally.



## Results

### Morbidity and Mortality Following Liver Transplant in Patients with ARLD



- Each year 20% of approximately 55,000 admitted patients for AH are severe enough to warrant LT according to the National Inpatient Database (Shipley & Singal, 2020).
- This integrative review has provided data from recent studies to support the favorable outcomes of LT for the ARLD patient. The six-month mandatory sobriety rule should likely be abandoned especially for the AH population who have high rates of mortality within a short time.
- This integrative review suggests that the importance of strict criteria for listing is imperative for successful outcomes along with intensive psychological and social support. The utility for alcohol detection and screening is useful. The availability of an addictionologist and psychiatric care could be helpful to prevent harmful alcohol relapse.
- As reported by the data from the National Epidemiologic Survey on Alcohol and Related Conditions, high-risk drinking and alcohol use disorder has increased across the general population and all socio-demographic groups (Julien et al., 2020).
- Recent research has found that the COVID-19 pandemic has contributed to an increase in alcohol use in the U.S., worsening a current health problem (Grossman et al., 2020).



## Conclusions

- LT for ARLD is seen by some as controversial due to the demand for donor organs and the low rates of organ availability combined with the fact that the ARLD patient could relapse and thereby damage the transplanted liver. The results of this review indicate that LT recipients with ARLD have good outcomes.
- The first evidence that this patient population could have good outcomes was a seminal study conducted in France by Mathurin et al. (2011). They found that very stringent selection criteria of those patients who were non-responders to steroids are feasible for successful outcomes after LT. The severe alcoholic hepatitis liver transplant recipients in this study were shown to have improved survival with low relapse rates (Mathurin et al., 2011).
- There were several similar findings identified throughout this review addressing the outcomes of ARLD in LT recipients over recent years.
  - 3 Specific categories were identified:
    - Six-Month Abstinence Rule
    - Risk Stratification
    - Prevention Strategies and Post-Transplant Monitoring for alcohol use

## Considerations For Practice:

Consideration for liver transplantation of the candidate with ARLD should be implemented by using standards of care:

- The abandonment of the six-month abstinence rule.
- Strict listing criteria.
- Post-transplant follow-up with regular screening and the enforcement of addiction medical prevention and treatment.

The current increase in AH necessitates further research of LT listing for patients due to ARLD and their long-term post-transplant outcomes in the absence of the six-month abstinence rule.

Nursing implications include the need to recognize this patient population and provide the support needed for a successful recovery after liver transplantation.

Special Thanks to Dr. Rhonda Maneval Ph.D for mentorship and Dr. Karen Roush Ph.D. for support.



# Exploring Barriers, Facilitators, and Opportunities for DNP Leadership in Translational Research: A Qualitative Study

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## Background

- Doctor of Nursing Practice (DNP) programs were developed to provide a practice focused terminal for degree as an alternative to the research focused PhD and EdD degrees.
- DNPs are prepared with the skills to improve healthcare outcomes by translating evidence into practice, through leading EBP and QI initiatives.
- Little is known about how DNPs actually utilize their skills in practice settings.
- Exploring DNPs experiences regarding leading EBP/QI in clinical settings may provide insight into how well DNP program goals have been realized.

## Purpose

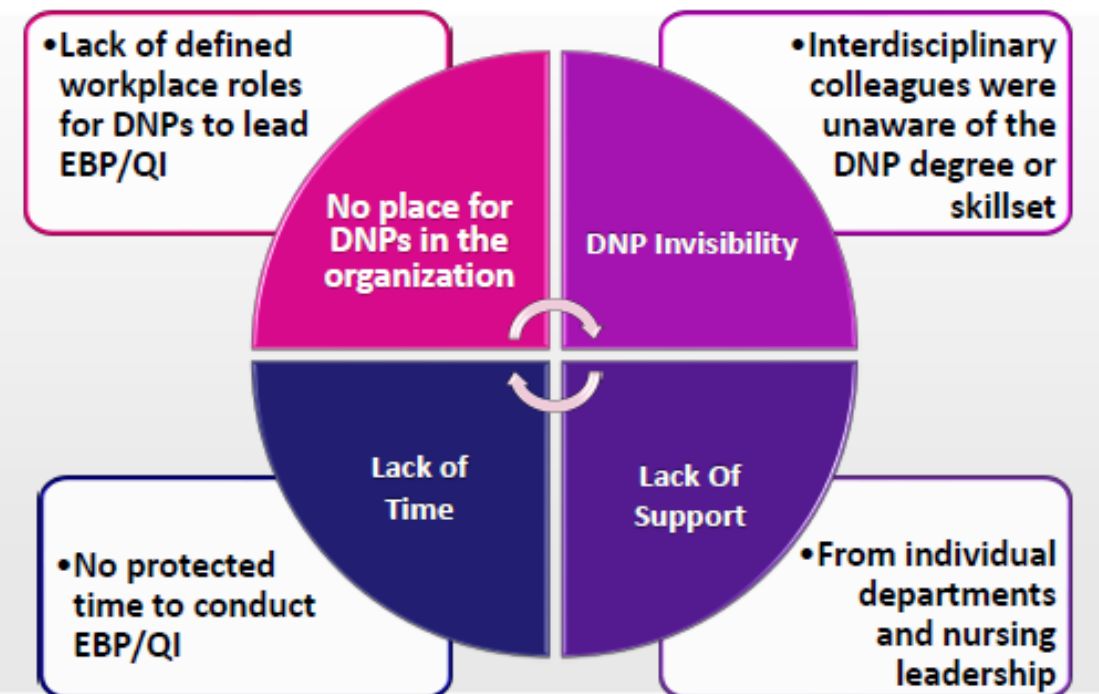
- To explore DNP-prepared nurses' experiences leading EBP/QI projects in the clinical setting, and their perceptions of barriers and facilitators.

## Methods

- A qualitative descriptive approach was used.
- A purposive sample of DNPs was recruited from a large urban health system.
- Semi-structured interviews were conducted from March-August 2021 and continued until saturation was reached.
- Interviews were audio taped and professionally transcribed.
- Two researchers independently coded transcripts, identifying themes and subthemes.
- With input from 2 other researchers, a codebook was developed and applied to the remaining transcripts.
- All authors organized codes into themes through discussion and analytic memos.

## Results

- 11 DNPs from 2 hospitals participated
- Participants were diverse in regard to age, years of experience in nursing, practice settings and program type (in person, on-line, hybrid)
- None of the DNPs reported leading EBP/QI as part of their work roles.
- Four themes related to barriers to leading EBP/QI emerged:



## Participants' Perceptions:

*"DNP-prepared nurses are not well utilized in a health care organization because they don't understand the role of a DNP-prepared nurse."*

*"Unfortunately, I don't think most people even know what a DNP is."*

*"I'm really disappointed with how the institution has not done anything to support me or use my skills since I have obtained my DNP."*

*"...if there was anything that I wanted to do EBP-related, I have to do it on my own time."*

## Discussion/Implications

- DNPs are educated to improve healthcare outcomes through EBP and QI, however the participants in this study were not leading or conducting EBP/QI in clinical settings.
- DNP's would like to conduct translational research in clinical settings, but very few opportunities and little support is available.
- DNPs work roles did not change substantively after graduation.
- DNPs continued to be utilized by their departments primarily as clinical providers, and were rarely invited to participate in departmental EBP/QI initiatives.
- DNPs reported that interdisciplinary colleagues were unaware of the DNP degree or skillset.
- DNP reported having no protected time, which was significant barrier to conducting EBP/QI.
- DNPs reported receiving little support from their clinical departments, nursing departments or nurse leaders.

## Limitations

- Findings are limited by the setting of a single health system, and results may not be transferrable to other settings.

## Conclusions

- DNP-prepared nurses face significant organizational barriers to conducting original EBP/QI in their workplaces.
- DNP skills are infrequently utilized in clinical settings.
- Nurse educators and leaders may utilize findings to create work environments that support DNPs in realizing academic goals of improving outcomes by applying scholarship to practice.

## References

- Beaber, A. S., Palmer, C., Waldrop, J., Lynn, M. R., & Jones, C. B. (2019). The role of Doctor of Nursing Practice-prepared nurses in practice settings. *Nursing Outlook*, 67(4), 354-364. doi:https://doi.org/10.1016/j.outlook.2019.02.006
- Clinton, P., & Sperhac, A. M. (2006). National agenda for advanced practice nursing: the practice doctorate. *J Prof Nurs*, 22(1), 7-14. doi:10.1016/j.profnurs.2005.12.007
- Colquhoun, K. J., & Brass, B. (2016). Qualitative Descriptive Methods in Health Science Research. *HERO: Health Environments Research & Design Journal*, 9(4), 16-25. doi:10.1177/1937586715614171
- Essentials of Doctoral Education for Advanced Nursing Practice. (2006). Retrieved from Washington, DC:
- McCusker, L. A., Broome, M. E., Tracie, L., Hayes, R., North, A., Merrill, C. M., ... Villarruel, A. M. (2020). Doctor of nursing practice (DNP) degree in the United States: Reflecting, readjusting, and getting back on track. *Nursing Outlook*, 68(6), 494-503. doi:https://doi.org/10.1016/j.outlook.2020.03.006



**Thank you!**